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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,637	09/19/2003	Morris G. Haney	P-7627(DIV)	5053

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EXAMINER

BOCHNA, DAVID

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Claim Objections*

1. Claim 45 is objected to because of the following informalities: Claim 45 contains grammatical errors, specifically the last two lines of the claim. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18, 20, 22-24, 26, 28 and 30-34 are rejected under 35 U.S.C. 102(b) as being anticipated by the Mid-Continent PVC Water Well and Casings catalog of April 1975.

In regard to claims 18 and 26, Mid-Continent discloses a single piece polyvinyl chloride (PVC) pipe of a predetermined interior diameter that has lateral strength when connected to a similar adjacent PVC pipe (see top of page 2 of Mid-Continent), said PVC pipe comprising:

a male end of said PVC pipe which has external threads;

a female end of said PVC pipe having an enlarged exterior diameter;

a first enlarged interior diameter (larger area of the belled end to the right of B) of said PVC pipe at said female end, said first enlarged interior diameter being larger than said predetermined interior diameter and having internal threads to mate with said external threads of said male end of said similar adjacent PVC pipe;

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a second enlarged interior diameter (D) being larger than said first enlarged interior diameter and terminating said PVC pipe at said female end, said second enlarged interior diameter being

(a) slightly larger in diameter than said male end of said similar adjacent PVC pipe to receive said male end therethrough and

(b) long enough to provide said lateral strength when connected to said similar adjacent PVC pipe (the wall D would provide some lateral strength to the adjacently attached male pipe);

said male end and said second enlarged interior diameter at said female end funneling said PVC pipe and said similar adjacent PVC pipe together;

said PVC pipe being disconnectable from said similar adjacent PVC pipe and reusable (although the diagram discloses solvent welds, the Mid-Continent document states that for easy installation, a threaded joint is offered and that the welds are not necessary, but only recommended when a pressure tight system is desired (see paragraph titled “joining” for more detail)).

In regard to claims 20 and 28, the PVC pipe is of a substantially uniform circumference at the male end (the very end of the male end is substantially uniform).

In regard to claims 22 and 30, the very tip of the male end is beveled.

In regard to claims 23 and 31, wherein said first enlarged interior diameter D of said female end PVC pipe is formed by expanding said female end while heated and pliable (this is a product by process claim, and the process is given little patentable weight as long as the prior art anticipates the claimed structure of the present invention).

In regard to claims 24 and 33, wherein a connection with said similar adjacent PVC pipe will withstand approximately 1000 pounds of lateral force without leaking if said PVC pipe is a 2 inch diameter PVC pipe or proportionate amounts of lateral force for different diameter PVC pipe (because all PVC will have uniform properties, any PVC pipe with a 2 inch diameter should be able to withstand the same loads as that recited by the applicant).

In regard to claim 32, the external threads and the internal threads are tapered.

In regard to claim 34, the external threads and the internal threads are squarely threaded.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21, 25, 29, 35, 36-37 and 39-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mid-Continent PVC Water Well and Casings catalog of April 1975 in view of Kane et al.

In regard to claims 21, 25, 29, 35, 36 and 43, Mid-Continent discloses a PVC well casing pipe as described above, but does not disclose that the threads terminate at the male end of the pipe or that the threads are triangularly threaded. Kane et al. discloses providing a well casing pipe where the threads can either stop short of the male end (fig. 3) or extend to the end of the pipe (fig. 1). Kane et al. also discloses that either square 3a or triangularly shaped threads 2 can be used to make the well casing connection. Inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise

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art to substitute one for the other in the well casing connection of Mid-Continent. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982).

In regard to claims 37 and 44, further comprising a shoulder (outwardly sloped section just to the right of B) between the female end (D) and the intermediate section (the portion of the female end where the inner solvent weld is depicted in the figure).

In regard to claims 39 and 46, the PVC pipe is of a substantially uniform circumference at the male end (the very end of the male end is substantially uniform).

In regard to claims 40 and 47, the very tip of the male end is beveled.

In regard to claims 41 and 48, wherein said first enlarged interior diameter D of said female end PVC pipe is formed by expanding said female end while heated and pliable (this is a product by process claim, and the process is given little patentable weight as long as the prior art anticipates the claimed structure of the present invention).

In regard to claims 42 and 49, wherein a connection with said similar adjacent PVC pipe will withstand approximately 1000 pounds of lateral force without leaking if said PVC pipe is a 2 inch diameter PVC pipe or proportionate amounts of lateral force for different diameter PVC pipe (because all PVC will have uniform properties, any PVC pipe with a 2 inch diameter should be able to withstand the same loads as that recited by the applicant).

In regard to claim 45, the first section (D) at the female end having sufficient length to provide lateral strength when the PVC drop pipe is connected to a similar adjacent PVC drop pipe (the wall D would provide some lateral strength to the adjacently attached male pipe), the first section being long enough to receive substantial portion of the external threads of the similar

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adjacent PVC drop pipe and being mated with the external threads of the similar adjacent PVC drop pipe with the internal threads of the second section.

***Allowable Subject Matter***

6. Claims 50-54 are allowed.
7. Claims 19, 27 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments, see the 24 page response to the 6/1/2005 office action, filed 12/1/05, with respect to the rejection(s) of claim(s) 18-54 under Kane et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Mid-Continent PVC Water Well and Casings catalog of April 1975 and Mid-Continent PVC Water Well and Casings catalog of April 1975 in view of Kane et al.

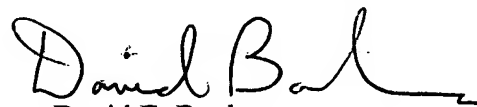
***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Bochna whose telephone number is (571) 272-7078. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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A handwritten signature in black ink, appearing to read "David Bochna", with a long horizontal flourish extending to the right.

David E. Bochna  
Primary Examiner  
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